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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/557,282	04/24/2000	Arasanipalai K. Ananthapadmanabhan	PA000275	8121

23696 7590 01/14/2003

Qualcomm Incorporated
Patents Department
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EXAMINER

STORM, DONALD L

ART UNIT	PAPER NUMBER
2654	9

DATE MAILED: 01/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/557,282

Applicant(s)

ANANTHAPADMANABHAN ET AL.

Examiner

Donald L. Storm

Art Unit

2654

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --***Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on December 9, 2002 and January 8, 2003.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-28 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-28 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 09 December 2002 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.

4) Interview Summary (PTO-413) Paper No(s) _____.
5) Notice of Informal Patent Application (PTO-152)
6) Other: _____.

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Response to Amendment

2. The substitute drawings submitted by the Applicant were received on December 9, 2002 (paper 7). These drawings have been entered and are now the Figs. 1-10 of record.

3. The additional drawings showing Figs. 9 and 10 are objected to under 35 U.S.C. 132 because they introduce new matter into the disclosure. The 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

- a. adding the value of the current frame's parameter to the total of the values of previous frames (Fig. 9, item 710 and Fig. 10, near item 808); and
- b. weighted value of current frame input to the summer with previous frames (Fig. 10, item 808).

As originally filed, the disclosure (pages 26 and 27) shows only parameters of previous frames being weighted and summed for subsequent subtraction. the value for the current frame is not added to them and then subtracted. The disclosure (page 30, for example) shows weighted parameters of a current frame; however, they do not enter a sum with values of previous frames.

The Applicant is REQUIRED to cancel the new matter in the reply to this Office action.

4. The Examiner notes, without objection, the possibility of informalities in the amendment. The Applicant's cooperation is requested to review any errors of which the Applicant may become aware for correction during normal review and revision of the disclosure.

a. At page 4, should the title of US Patent 6,456,964 be --Encoding of Periodic Speech Using Prototype Waveforms--?

b. At page 4, should the month "October" of the date of issue of US Patent 6,456,964 be --September--?

Drawings

5. The drawings are objected to under 35 U.S.C. 132 because Figures 9 and 10 contain new matter which is not supported by the original disclosure. Please see the discussion in the section titled Response to Amendment.

6. The drawings are objected to under 37 CFR § 1.83(a) because they fail to clearly show significant features necessary for communicating the invention using the same rationale as in the prior Office action (paper 5) at numbered section 1.

7. Corrected drawings (or drawings with proposed corrections highlighted, preferably in red ink) are required in response to this Office action. Corrections may no longer be held in abeyance and ANY REQUEST TO HOLD CORRECTIONS TO THE DRAWINGS IN ABEYANCE WILL NOT BE CONSIDERED A *BONA FIDE* ATTEMPT TO PROVIDE A COMPLETE REPLY. See 37 C.F.R. § 1.121(d) and § 1.85(a), published September 8 and September 20, 2000.

Specification

8. The specification is objected to under 37 CFR 1.74 because Fig. 9 and Fig. 10 are not described with the brief descriptions in the specification. The Applicant should add a brief description of each added figure. See 37 CFR 1.74 and MPEP § 608.01(f). Appropriate correction is required.

9. The specification is objected because the confusion introduced by using reference characters in the drawings that are not mentioned in the description needs clarification. The reference signs of Figs. 9 and 10 need description in the specification. Appropriate correction is required.

Claim Rejections - 35 USC § 103

Fette and Kleider

10. Claims 1-6, 10-16, and 20-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fette et al. [US Patent 5,255,339] in view of Kleider [US Patent 6,301,265] using the same rationale as in the prior Office action (paper 5).

Fette and Kleider and Marston

11. Claims 7-9, 17-19, and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fette et al. [US Patent 5,255,339] in view of Kleider [US Patent 6,301,265] and further in view of Marston [EP 0 987 680 A1] using the same rationale as in the prior Office action (paper 5).

Response to Arguments

12. The prior Office action, mailed September 3, 2002 (paper 5), requires corrected drawings, objects to the drawings, title, and specification, and rejects claims under 35 USC § 102 and § 103. The Applicant's arguments and changes in RESPONSE TO OFFICE ACTION filed December 9, 2002 (paper 6) and in SUPPLEMENTAL AMENDMENT filed January 10, 2003 (paper 8) have been fully considered with the following results.

13. With respect to objection to the drawings, the changes entered by amendment are not sufficient for communicating the invention because the drawings introduce summing parameters not in accord with the claimed subject matter. Please see the discussion in the section titled Response to Amendment. Accordingly, the objections are maintained. In addition, Please see new grounds of objection.

14. With respect to objection to the title, the changes entered by amendment are sufficiently descriptive. Accordingly, the objection is removed.

15. With respect to objections to the specification, the changes entered by amendment remove the indicated grounds for objection. Accordingly, the objections are removed. Please see new grounds of objection.

16. With respect to rejections of claims 29-31, the rejections no longer apply because the rejected claims have been canceled.

17. With respect to rejection of claims under 35 USC § 103, citing Fette, Kleider, and Marston in combination, the Applicant's arguments appear to be as follows:

- a. The Applicant's argument appears to be that Fette's weighting applies only to the superframe, not to at least one previous frame. This argument is not persuasive because Fette [at column 11, lines 50-68] weights the energy, periodicity, and LPC residual of each frame of the superframe from M=1 to N. The frame number M=1 is at least one previously processed frame of speech and its energy [for example, at column 12, lines 30-55] is at least one value of that frame, for which Fette describes weighting and summing.
- b. The Applicant's argument appears to be that indicating a range including +1 does not meet the limitation +1. This argument is not persuasive because describing an inclusive range describes all values included in the range, endpoints of the range included. At least one result of the summing described by Fette is 1, called +1 by Fette.
- c. The Applicant's argument appears to be that the claimed weighted values provide a comparison to each other; however, Fette's weights are compared to absolute values of +1 or -1. This argument is not persuasive because the features upon which the Applicant's argument relies are not recited in the rejected claims. In addition, Fette's weighted periodicity, energy, and residual values that determine the voicing are compared to each other by the weighting. Fette calls it "votes" of these features.
- d. The Applicant's argument that the sum of all weights for frames of speech be equal to one is not clear in light of the claim language, but the argument appears to be that all weights used for all previous frames should sum to unity. This argument is not persuasive because the features upon which the Applicant's argument relies are not recited in the rejected claims. The

claimed limitation is that the sum of all weights (that are) used is unity; frames are not claimed in relation to the sum.

e. The Applicant's argument appears to be that Kleider's subtraction does not use both a weighted value and an unweighted value in the subtraction. This argument is not persuasive because the features upon which the Applicant's argument relies are not recited in the rejected claims. No element of the claim sets forth an unweighted value or an unweighted parameter.

The Applicant's arguments have been fully considered but they are not persuasive. Accordingly, the rejections are maintained.

Conclusion

18. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

19. Any response to this action should be mailed to:

Box AF

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314, (for formal communications; please mark "EXPEDITED PROCEDURE")

Or:

(703) 872-9314, (for informal or draft communications, and please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald L. Storm, of Art Unit 2654, whose telephone number is (703)305-3941. The examiner can normally be reached on weekdays between 8:00 AM and 4:30 PM Eastern Time. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on (703)305-4379. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office at telephone number (703)306-0377.

Donald L. Storm
Donald L. Storm
January 10, 2003

Marsha D. Banks-Harold
MARSHA D. BANKS-HAROLD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600